

REMARKS

Entry of the amendments is respectfully requested. No new matter is added. The amendments address points raised in the outstanding Office Action for the first time. Appealable issues are reduced in number. Reconsideration is respectfully requested in light of the foregoing amendments and remarks which follow is respectfully requested.

Claims 1-4 are before the Examiner. Claim 1 has been amended to identify the filler as a reinforcing one. Claim 5 is added and presents the bulk density range suggested by the Examiner. Support is found throughout the specification as filed including the paragraph stating at line 11 line 21 on page 8 of the specification.

The withdrawal of the rejections of Claim 1 under 35 U.S.C. 102(b) as being anticipated by Mangold et al. (U.S. Patent No. 5,976,480) and the rejection of Claim 2 under 35 U.S.C. 103(a) as being unpatentable over Mangold is noted with appreciation.

The objections to claims 1 and 2 are noted. The exact basis for the objection is not entirely appreciated since the meaning was clear. However, in the interests of advancing prosecution, the suggested language is incorporated into the claims by amendment.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse.

Reconsideration is respectfully requested. Applicants agree that case law suggests that certain case law suggests that open ended “ranges” in certain technologies are not supported in the specification where the technology does not exist to attain to attain higher values above a threshold value. Here, the technology exists. Also, when the claim is read in its entirety, the extent of the range is clear and determinable. Claim 4, as amended, specifies the filler to be a reinforcing filler. “Reinforcing filler” is a recognized term in the art as having certain desired properties, e.g. surface area, which achieves its function. See U.S. 2007/0191537 ([0026], [0027]) and page of the specification at page 8, starting at line 21. It is respectfully submitted that the range is not as open ended as it may appear.

Reconsideration and withdrawal of the rejection is respectfully requested, especially as to the claim as amended.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

Applicants agree with the Examiner that case law suggests that relative terms are acceptable when there is a means to ascertain their meaning- a reference point and a test(s) to ascertain its meaning in a manner acceptable in the art.

Here, the claim has been amended to specify the filler as reinforcing one. An effective amount would achieve the indicated function. The function is well known in the art, especially in terms of a silicone rubber. Again note U.S. 2007/0191537. Also, a claim should be read in its entirety.

Reconsideration and withdrawal of the rejection is respectfully requested, especially in light of the amendments to the claims.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,331,558 to Azechi et al. Applicants respectfully traverse.

Claim 1 as amended describes a silicone rubber having high tear propagation resistance, containing a reinforcing amount of a structurally modified, vinyl-modified hydrophobic pyrogenic silica having a BET between 10 and 1000 m.²/g. The vinyl group correlates with high tear propagation resistance. See Table 6, especially Example 3.

The Azechi et al. patent has been considered, especially those passages identified by the Examiner and in addition, the examples (dimethylpolysiloxane). A silicone rubber product like that claimed was not prepared. (It is agreed that "inherent" properties accompany the compound

but, as here, the compound has to exist. It is not disclosed by Azechi et al.) There is no mention of destructured pyrogenic silica. There is no mention of DBP and/or bulk density values associated with low structure pyrogenic silica. Further, there is no mention of the high tear propagation resistance values. There is no disclosure that suggests that Azechi et al.'s products have the advantages shown in Table 6. The viscosity values taught in the Azechi et al patent are distinct from those disclosed. Since "low structure" correlates with viscosity, there is no reason to believe that the Azechi et al.'s products have a "low" structure like that claimed.

For a reference to be anticipatory, it must teach each and every element required by the claims. Withdrawal of the rejection is respectfully requested.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,331,558 to Azechi et al. in view of U.S. Patent No. 6,384,125 to Bergstrom et al. Applicants respectfully traverse.

The deficiencies of Azechi et al. are discussed above in the context of anticipation- low structure pyrogenic silica having vinyl groups affixed to its surface which when used as a reinforcing filler in a silicone rubber product imparts to the product a very high resistance to tear propagation. Note Table 6 on page 17 of the instant specification suggests the magnitude of that product characteristic.

Bergstrom et al. provide no guidance which would lead one to select vinyl groups and low structure pyrogenic silica. Bergstrom et al. also provide no guidance how one can improve tear resistance of silicone to the degree achieved by Applicants.

Bergstrom et al rather teach that the use of modified fillers having a pH of 5.0 to 10 results in less decomposition in silicone mixtures than do the use of lower pH silica fillers. A neutralization step is taught. The silica used in the filler is colloidal or precipitated silica. See col. 3. Pyrogenic low structure silica (Cabot MS75D) is mentioned as a control. (There is no evidence of "low" structure- it is not treated in a manner like that claimed.)

Tables 3 and 4 (Col. 13, 14) of Bergstrom et al. do not suggest the selection of the materials needed for the claimed product or the possibility of the advantages established by Applicants and shown in Table 5 and 6. There is no teaching that the presence of affixed vinyl groups on a pyrogenic silica surface results in a very high tear propagation resistance.

The teachings of references are incomplete. There is no correlation with high tear propagation resistance and vinyl groups and low structure pyrogenic silica. A proper *prima facie* case of obviousness has not been established. There is no expectation, based on what the references suggest and teach, that the results shown in Table 6 could be achieved.

Withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,331,558 to Azechi et al. in view of U.S. Patent No. 6,384,125 to Bergstrom et al. as applied to claim 1, and further in view of U.S. 2002/007412 to Kobayashi. Applicants respectfully traverse.

The deficiencies latent in Azechi et al. are discussed above relative to anticipation. It is respectfully submitted that the teaching of Kobayashi et al. do not remedy those deficiencies.

Kobayashi et al. teach a water repellent silicone coating agent. A very high tear propagation resistance for a vulcanized silicone rubber product is not discussed or taught. A “low” structure pyrogenic silica is not identified. The density values shown in paragraph [0023] are noted. Note US 5,160,470 shows the use of a densified silica product in cement. It is not clear how the paragraph [0023] teaching suggests the preparation and selection of vinyl-modified hydrophobic pyrogenic silica as a filler that imparts to a silicone rubber product containing it a very high tear propagation resistance.

It is respectfully submitted that the teachings of the references, taken alone or in combination, are incomplete relative to the invention as claimed. It is submitted that there is a failure to establish a proper *prima facie* case of obviousness. Withdrawal of the rejection is

respectfully requested.

Claims 1-3 are rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 7,563,839 ('839). Applicants respectfully traverse.

Claims 1 and 2 of the '198 application have been considered.

Claim 1 is directed to a composition of matter comprising a silicone rubber, a structure-modified hydrophobic pyrogenic silica as filler and a conductive furnace black. There are three "wherein" clauses. One specifies the silica as a silanized, structure-modified pyrogenically prepared silica with dimethylsilyl and/or monmethylsilyl groups affixed to the silica. The second specifies the silicone rubber as LSR. The third specifies the composition as a vulcanized silicone rubber mixture.

Claim 2 further limits claim 1 by specifying the manner of preparing the silica and reciting additional characteristics, e.g. surface area.

The rejected claims do not require the presence of conductive carbon black. The rejected claims do not require the presence of affixed dimethylsilyl and/or monmethylsilyl group. There are other differences.

There is a clear line of demarcation between the claims of the instant application and the identified claims of the patent. There would be no extension of a patent monopoly.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-2 are provisionally rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 1-2 and 7 of copending Application No.

10/591,609 ('609). Applicants respectfully traverse.

It is noted that the '609 application has been allowed. See Public Pair (uspto.gov). There is an Examiner's amendment to claim 8. The allowed claims do not correspond to those appearing in US 2007/0191237 A1 (the published '609 application). Claim 1 is a product by process claim and dependent on claim 2. The process for preparation (claim 2) recites preparation steps and step sequence not recited in the rejected claims. Recent changes in the case law relative to infringement of product by process suggest that the process limitations have to be considered.

Reconsideration is respectfully considered. The rejection is based on claims of the '609 that have been amended. There is a clear line of demarcation. There is no extension of a patent monopoly.

Request for Interview

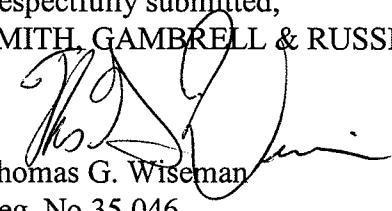
Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefore are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 032301.592.**

Respectfully submitted,
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